

# Transport Canada Civil Aviation

## Rulemaking Update



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TCCA Aircraft Design Standards (AARTC/D)

2022 (E)TSO Workshop  
EASA, 20 September 2022



Transport  
Canada

Transports  
Canada

Canada

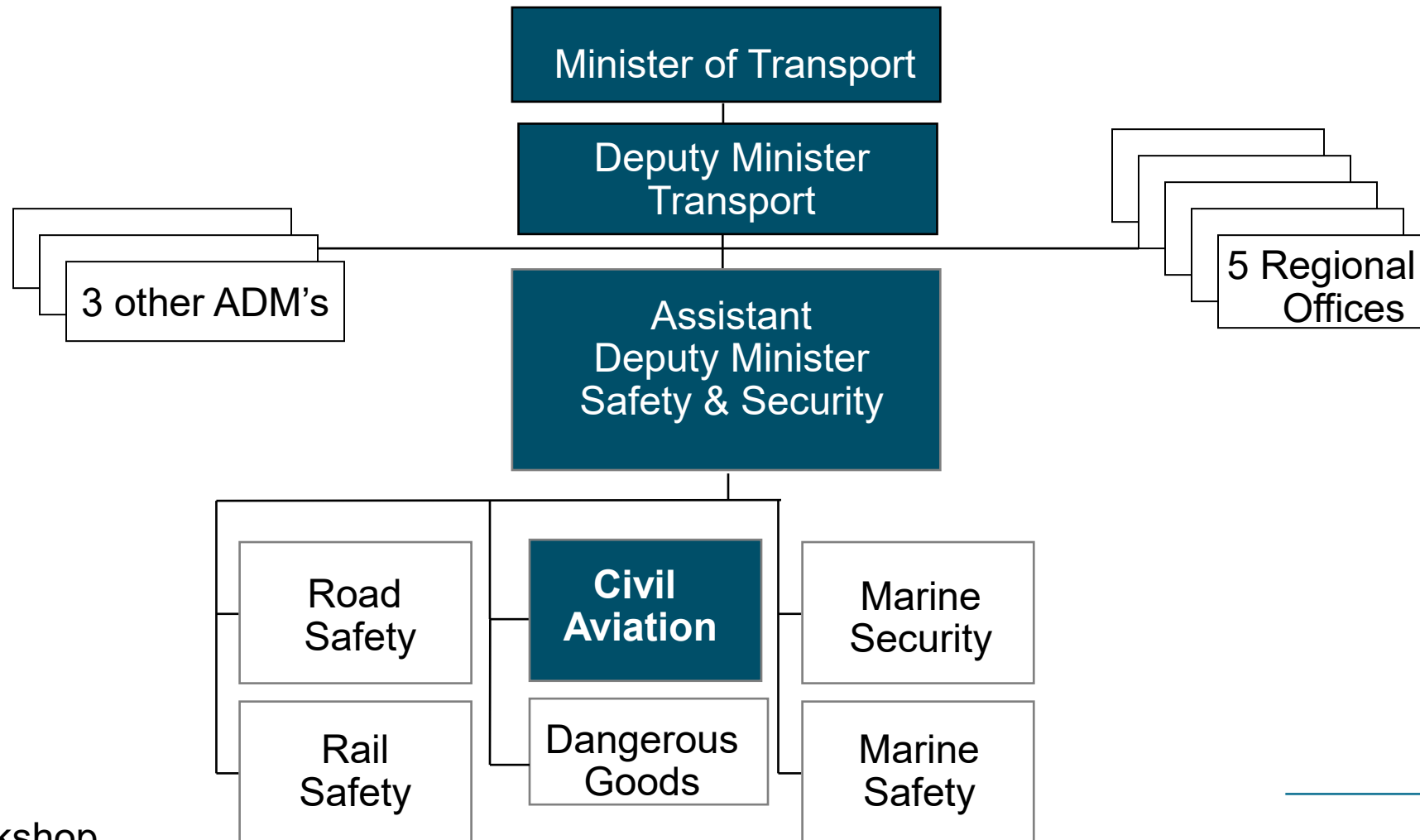
# Transport Canada Organisation



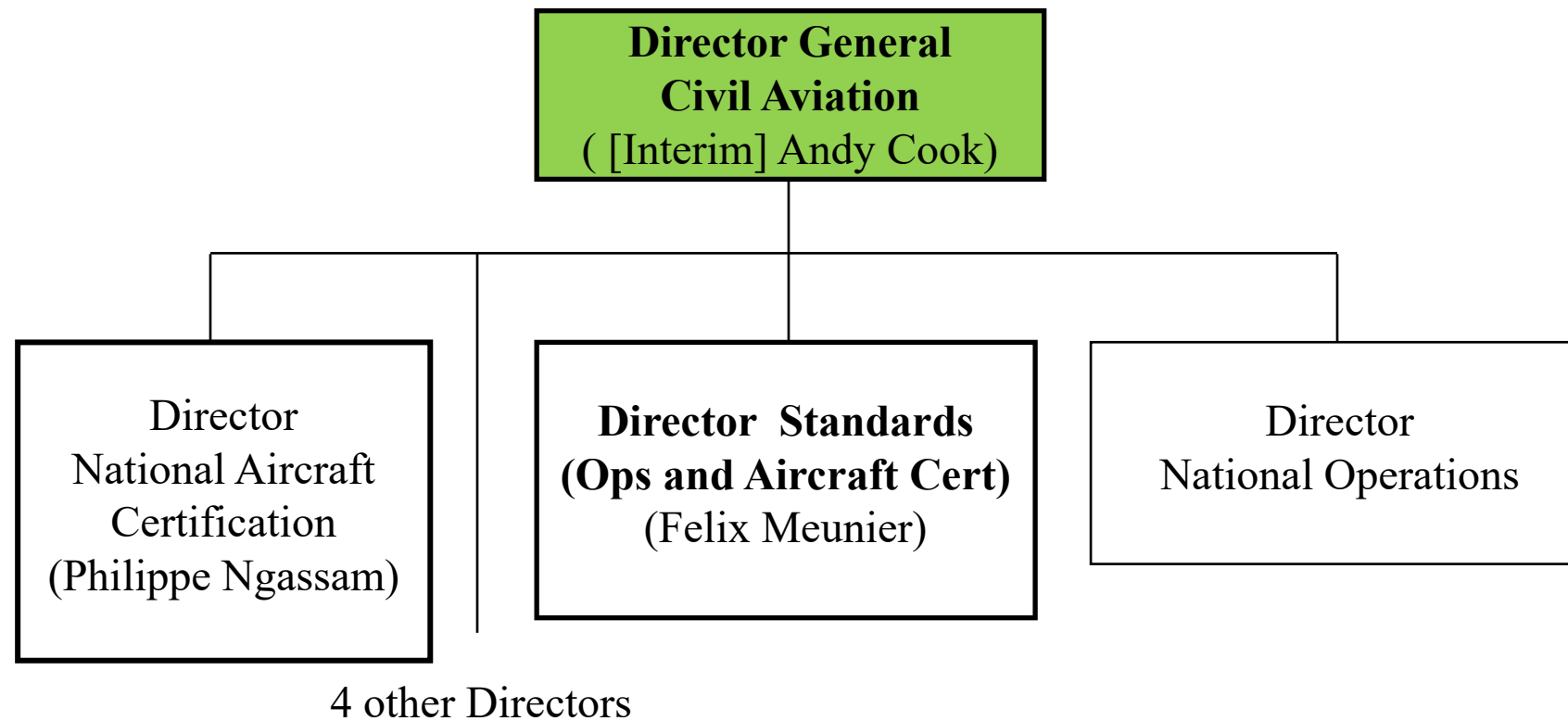
- HQ in Ottawa
- Five Regional Offices
- Thirty Six TC Centres
- Over 5000 Employees across Canada



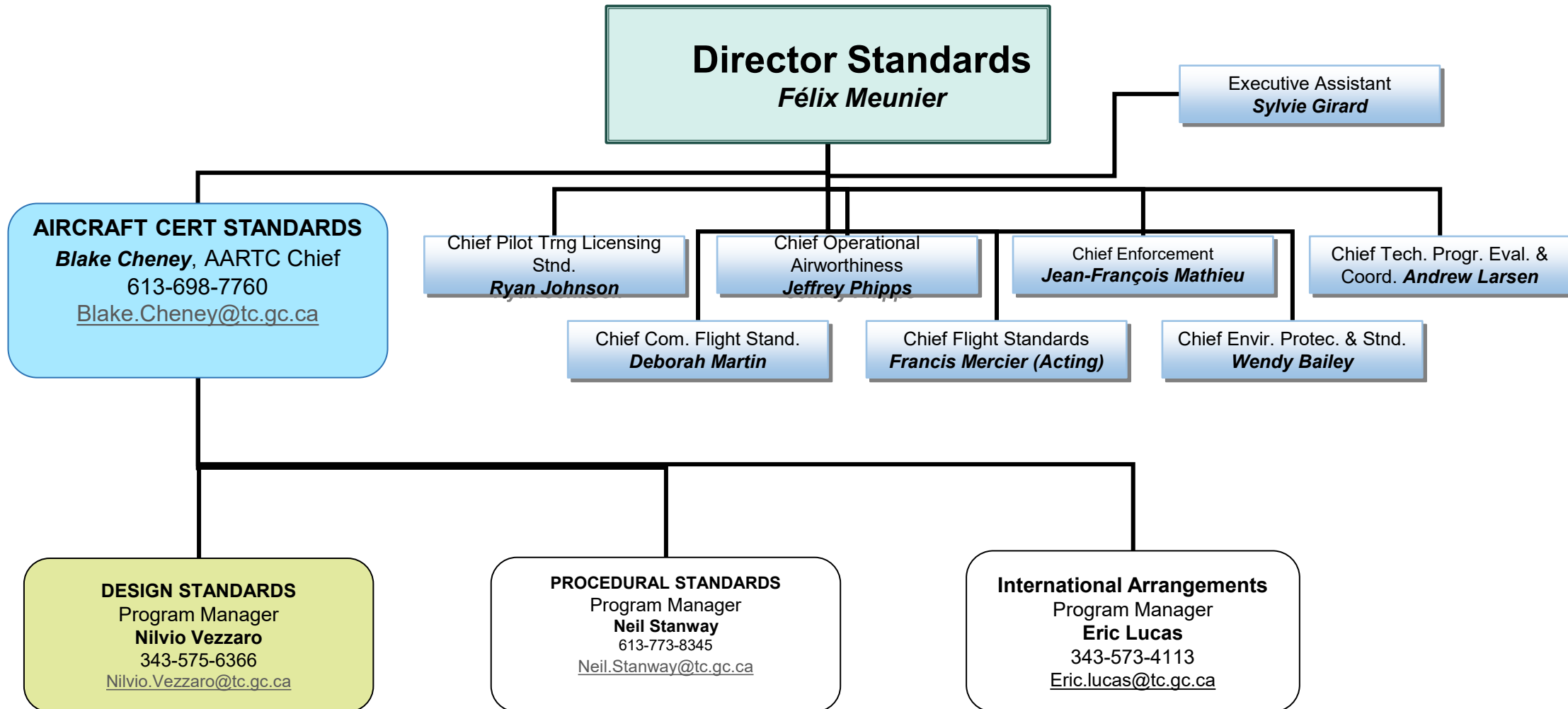
# Transport Canada Organisation



# Transport Canada Civil Aviation Organisation



# Civil Aviation Standards branch (AART)



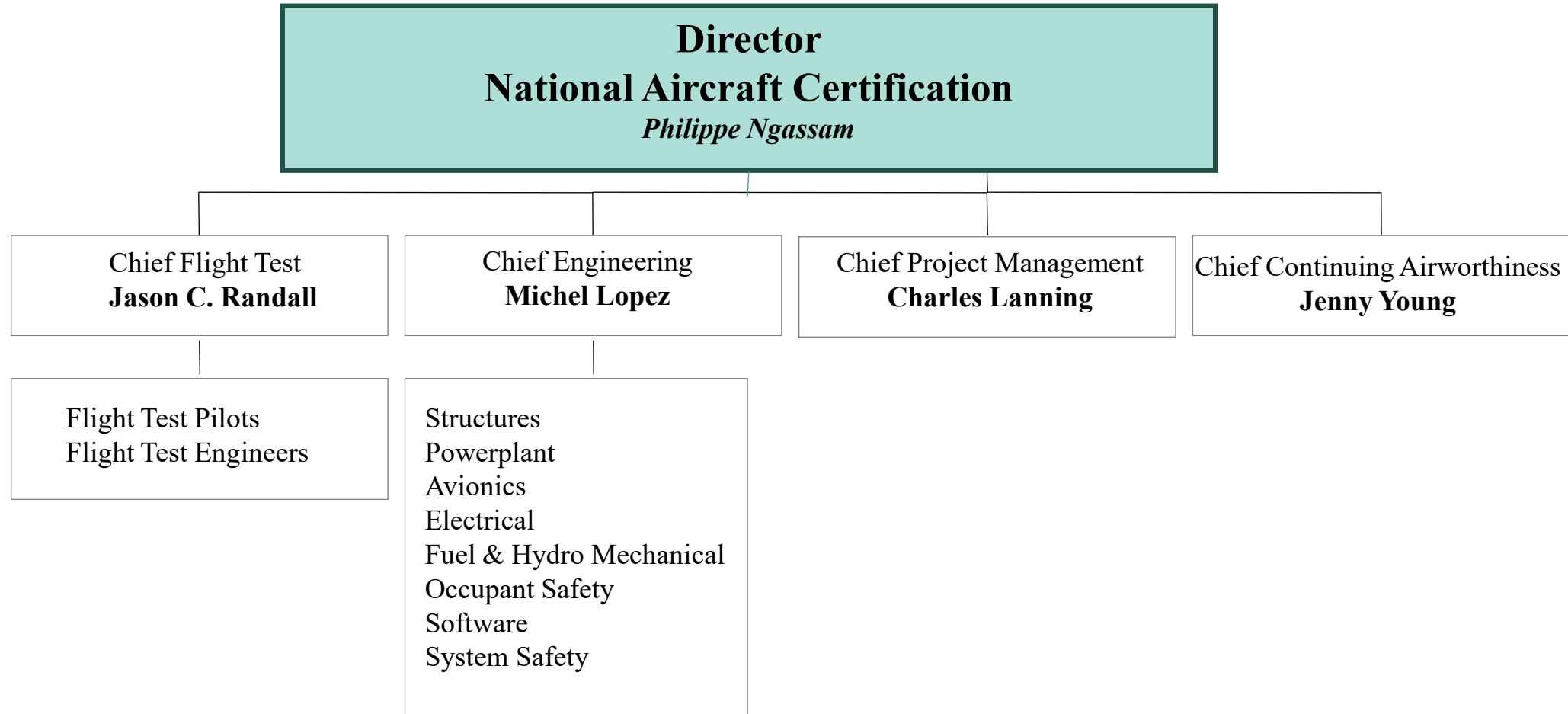


# Transport Canada Organisation (...)

## Aircraft Certification Standards Division

- Establishes and regulates standards (including CAN-TSO)...
  - for aeronautical products designed and operated in Canada.
- Guides the aerospace industry...
  - with respect to certification in highly technical fields, particularly in areas of new or revised approaches as a result of emerging technical trends.
  - Develops guidance and advisory material
- Contributes to active aircraft certification projects
  - Special Conditions Airworthiness
  - Exemptions
  - Certification Basis
  - Findings of equivalent safety

# National Aircraft Certification (NAC)



# AWM Chapter 537 Introduction

- TCCA Airworthiness Manual (AWM) is the collection of standards for aeronautical products
  - Standards are Incorporated by reference in Civil Aviation Regulation (CAR) 521 (Part V Subpart 21)
- AWM Chapter 537 – *Appliances and Parts* contains the list of effective CAN-TSOs (Subchapter B, Appendix A)
  - Index 1 contains CAN-TSOs that incorporate FAA TSOs
  - Index 2 contains CAN-TSOs that incorporate EASA CS-ETSO Index 2 5XXX series ETSOs (specific to EASA)
  - Index 3 contains CAN-TSOs that are TCCA specific
    - CAN-TSO-3C503 – *Helicopter Passenger Transportation Suit Systems (HPTSS)*



# AWM Chapter 537 Update

- Updated Airworthiness manual (AWM) Chapter 537 via NPA 2022-006
- Change 537-19
- Effective August 28, 2022 (Web published August 28 2022)

<https://tc.canada.ca/en/corporate-services/acts-regulations/list-regulations/canadian-aviation-regulations-sor-96-433/standards/part-v-airworthiness-chapter-537-standards-appliances-parts>

# AWM Chapter 537 Updates - Content

- FAA TSOs: Incorporate adoption and removals from FAA Current TSO list between December 17, 2020 until April 1<sup>st</sup> 2022
- EASA ETSOs: No change since last update – incorporates Amendment 16 of CS-ETSO, Index 2
- No other new Index 3 CAN-TSO

# AWM Chapter 537 – Next updates

## Routine updates

- FAA TSOs: New TSOs introduced after April 1st, 2022 will be considered for adoption as CAN-TSO at next update
  - no new FAA TSO as of September 16, 2022
- EASA ETSOs: incorporation of Index 2 ETSOs from CS-ETSO recent amendment 17 (31 Aug 2022)
  - Optional depending on progress of automatic incorporation proposal (see next slide)
- No new TCCA specific CAN-TSO (Index 3) is currently planned

# AWM Chapter 537 – Next updates

## Notable update proposals

- Ambulatory incorporation by reference of ETSOs (CS-ETSO Index 2). Draft proposal under legal review
  - Legacy proposal NPA 2018-004 was withdrawn due to technicalities issues with ambulatory incorporation of FAA TSOs.
  - All Index 2 ETSOs to be incorporated
  - Once this is effective, the list of common CAN-TSO and ETSO standards is intended to be updated to state that all Index 2 (E)TSOs are common.
- Planned Incorporation of EASA CS-APU as a CAN-TSO.

# CAR 521 Amendments

- CAR 521 currently undergoing extensive rewrite
  - General rework to clarify and harmonize language with U.S. 14 CFR part 21 and Annex I “Part 21” to Commission Regulation (EU) No. 748/2012 (hereinafter “part 21”), recognizing there are differences between these rules.
- Entire Division III – CAN-TSO proposed to be rewritten, but -
  - Manufacturer approvals, done under CAR 561, are and will remain separate from the design approval of articles under CAR 521.
  - Design approval and manufacturer approval in respect of an aeronautical product are not necessarily held by the same entity, but there must be a relationship between these holders, if separate.

# CAR 521 Amendments – cont'd

Division III – CAN-TSO rewrite will propose to :

- Refer to CAN-TSO DA products as “articles” rather than “parts and appliances”;
- Replace concept of “certification basis” for a CAN-TSO DA with “article meets its CAN-TSO”;
- Refer to CAN-TSO as “minimum performance standards” rather than “standards of airworthiness”;
- Apply harmonized article design change classification criteria – major/minor
- Apply specific procedures for APU design approval;
- Retain 521.107(b) DDP, but align criteria with EASA “part 21” 21.A.608 for direct read-across (was already similar, but not identical);
- Retain 521.104 “Effective period of application”; and
- Introduce “approval for deviation”.

# Thank you and we look forward to working with you!





Questions?